

AMENDMENT

In the Claims

Please amend the claims as follows:

1. (currently amended) A method for managing back reflections from a first end of an optical waveguide of in an optical system, comprising the steps of: forming a coiled coiling the first end of the optical waveguide around a coiling device; and holding the coiled first end of the optical waveguide around the coiling device with a restraining device, wherein:

the coiled first end is operable to suppress the back reflections in response to transmitting light through the coiled first end,

a second end of the optical waveguide is attached to a first optical communication device, and

the restraining device is operable to release the coiled first end of the optical waveguide for uncoiling to provide a communication link to a second optical communication device via the uncoiled first end.

2. (currently amended) The method of Claim 1, wherein ~~forming the coiled waveguide comprises forming a coil with a plurality of loops~~ providing the communication link comprises providing optical communication service to a premises via the second optical communication device.

3. (currently amended) The method of Claim 1, wherein ~~coiling forming the coiled first end of the optical waveguide comprises forming a coil with a plurality~~ number of loops having a radius less than 0.5 inches, wherein the number and the radius are selected according to a predicted lifetime for the optical waveguide and a bit error rate specification.

4. (currently amended) The method of Claim 1, wherein ~~the restraining device comprises an impinging region of the coiling device and the holding step further forming the coiled waveguide comprises wedging a section of the optical waveguide into an the impinging region of the coiling device.~~

5. (currently amended) The method of Claim [[1]] 4, ~~further comprising coupling light from a core of the coiled waveguide to a cladding of the coiled waveguide~~ wherein releasing the coiled first end of the optical waveguide comprises releasing the wedged section of the optical waveguide from the impinging region.

6. (currently amended) The method of Claim 1, wherein ~~forming the coiled~~ coiling the first end of the optical waveguide around the coiling device comprises forming a coil with a number of loops, and the method further comprises the step of specifying the number of loops to ~~meet~~ achieve an optical networking specification.

7. (currently amended) The method of Claim [[1]] 6, wherein ~~forming a coiled waveguide around a coiling device comprises forming a coiled waveguide around a spool~~ meeting the optical networking specification comprises meeting a bit error rate specification or a carrier to noise ratio specification.

8. (currently amended) An optical system comprising an optical waveguide and a radius controlling device having a release, the optical waveguide comprising:

a cylindrical core having a first refractive index, the core comprising a light conducting material operative to guide light;

a cladding axially surrounding the core and operative to guide light, the cladding having a second refractive index lower than the first refractive index;

a first end;

a second end opposite the first end, the second end comprising an end face operative to reflect light back into the cylindrical core; and

a coil between the first end and the second end operative to suppress reflection from the end face, wherein the release is operable to:

restrain the coil is formed around the radius controlling device with a controlled radius operative to attenuate guided light while controlling mechanical stresses of the optical waveguide; and

release the coil from around the radius controlling device to extend the optical waveguide to provide optical communication service over the optical waveguide.

9. (currently amended) The optical system of Claim 8, wherein the radius controlling device comprises a spool and the release comprises a clip that holds the coil around the radius controlling device when the optical waveguide is stowed and releases the coil in connection with providing the optical communication service.

10. (currently amended) The optical system of Claim 8, wherein the coil with the controlled radius is further operative to attenuate an optical communication signal ~~guided light~~ by coupling guided light out of the core and into the cladding.

11. (currently amended) The optical system of Claim 8, wherein the controlled radius is further operative to minimize the risk of fracture of the optical waveguide to meet a statistical lifetime prediction.

12. (currently amended) The optical system of Claim 8, wherein the coil comprises a plurality of loops and the optical waveguide comprises a spare optical fiber.

13. (currently amended) The optical system of Claim 8, wherein the coil comprises a number of loops, the number selected on the basis of a return loss specification for optical communication.

14. (currently amended) The optical system of Claim 8, wherein the ~~controlled radius is less than 12 millimeters and more than 2 millimeters~~ optical waveguide comprises an optical fiber held in reserve for expansion of an optical communication network.

15. (currently amended) The optical system of Claim 8, wherein the coil is adjacent to the end face, and the system further comprises an optical source connected to the first end and a connector at the second end for providing optical communication signals to a detector at a customer site.

16. (original) The optical system of Claim 8, wherein the optical waveguide is a pigtail optical fiber.

17. (currently amended) An optical system comprising:
a spool having a radius; and
an optical fiber having a source end attached to an optical communication source, an ~~exposed~~ end face opposite the source end, and a section adjacent the ~~exposed~~ end face; and
~~, wherein~~
a restraint operative to:
hold the section is in a coiled state around the spool and is operative to suppress reflections from the exposed end face; and
release the section from the coiled state around the spool to provide communication service to a site by coupling the released optical fiber to an optical device at the site.

18. (currently amended) The optical system of Claim 17, wherein the restraint ~~spool~~ comprises an impinging region of the spool and at least some portion of the section is wedged in the impinging region, and wherein releasing the section from the coiled state comprises releasing the at least some portion of the section from the impinging region.

19. (currently amended) The optical system of Claim 17, wherein coupling the released optical fiber to the optical device at the site comprises splicing the section to another optical fiber that leads to the site ~~the spool comprises an elastomer material.~~

20. (currently amended) The optical system of Claim 17, further comprising an optical splitter and a housing, wherein the source end is coupled to the optical splitter, and wherein the spool, the optical fiber, and the splitter are internal to the housing, and wherein coupling the released optical fiber to the optical device at the site comprises threading the optical fiber through a port of the housing.

21.-24. (withdrawn)